BARRIER BUSTERS

Two-year institutions help students achieve their dreams

By Steve Giegerich

There wasn't much talk about college during Rebecca Mathis' formative years in south Florida. She grew up in a single-parent household, the daughter of a Haitian immigrant who pointed Rebecca toward life as a traditional wife – one whose success would be measured by her abilities to cook, clean and care for her husband and family.

Rebecca took that path straight out of high school. She married at 17, and by the time she turned 21 she was the mother of two. Last year, Rebecca and her husband, Obed, welcomed a third child into the family. Fortunately, even as she moved quickly from high school student to wife and mother, Rebecca never lost touch with another message from her childhood. "My mother always told me that, when it seems that all the doors are shut for you, there's always one door open," she recalled. "You just need to walk through it."

In January 2004, Rebecca found that open door – at the admissions office on the central campus of Broward Community College in Davie, Fla. By walking through that door and enrolling in a community college, Rebecca joined a varied and growing group. She became one of the 11.6 million students attending one of the nation's nearly 1,200 two-year institutions. According to the American Association of Community Colleges (AACC), these 11.6 million students represent 46 percent of all U.S. undergraduates and 45 percent of first-time freshmen.

Clearly, in terms of carrying the enrollment load, the nation's two-year institutions (particularly its 979 public two-years) are doing yeoman's work. This is especially true among students in groups that are typically underserved in higher education, including low-income students, first-generation students and students of color. Community colleges serve 47 percent of the nation's black undergraduates, 56 percent of Latinos and 57 percent of Native Americans.

For Rebecca and millions of other underserved students, community colleges provide a precious opportunity. Without the accessibility, low cost and flexibility of Broward's class schedule, Rebecca wouldn't be a college student, and she might never reach her dream of being a registered nurse. In her words: "I basically wouldn't get anywhere."

In Rebecca's case, Broward is a family affair. She and Obed, 26, are both studying to be registered nurses – as is her 57-year-old mother, Juliette Mentor, a licensed practical nurse. To attend Broward, Rebecca and Obed juggle family and work. When one is in class or on the job, the other is home minding the kids. After receiving their associate's degrees, both plan to transfer to a four-year institution to complete their education.

Kay McClenney, director of CCSSE

Because they took an indirect route from high school to college, Obed and Rebecca are classified as "nontraditional" students (those older than age 22). Obed works 40 hours a week as a technician in a hospital psychiatric ward; Rebecca works 20 hours a week in a work-study program on the Broward campus. An average student through much of high school, Rebecca took a required prep (or developmental) class at Broward to get up to speed in algebra, a core subject. Broward required Obed, who arrived in Florida from Haiti at the age of 15, to take three prep classes – reading, writing and math – before he could begin earning credits toward his degree. When Rebecca receives her diploma, she will be the first in her family to graduate from college.

The Mathises' demographic profile – nonwhite, older, first-generation, employed, parents – belies the commonly held image of a "college student." Their lives have very little in common with that of a typical 18- to 22-year-old full-time student at a four-year residential campus. Yet, more and more often, community college students such as Rebecca and Obed Mathis reflect the realities of American higher education.

"There are so many competing issues in their lives," said Kay McClenney, director of the Community College Survey of Student Engagement (CCSSE) at the University of Texas-Austin. "These students are really heroes; they are people who often have to choose between buying books and paying their rent."

Working to widen the window of opportunity

As more and more students turn to community colleges to help them transform their lives, these two-year schools are seeking to transform themselves. At least two forces are driving this change: First is the widespread belief – and a founding

Community college students ... by the numbers

- Forty-six percent are 25 or older, and 32 percent are at least 30 years old. The average age is 29.
- Fifty-eight percent are women.
- Twenty-nine percent have annual household incomes less than $20,000.
- Eighty-five percent balance studies with full-time or part-time work. More than half (54 percent) have full-time jobs.
- Thirty percent of those who work full time also attend classes full time (12 or more credit hours). Among students 30-39 years old, the rate climbs to 41 percent.
- Minority students constitute 30 percent of community college enrollments nationally, with Latino students representing the fastest-growing racial/ethnic population.

Source: The American Association of Community Colleges, based on material in the National Profile of Community Colleges: Trends & Statistics, Phillippe & Patton, 2000.

Community college movement has plenty of allies

Community colleges traditionally have had a lower public profile than the nation's four-year colleges and universities, but that seems to be changing. President George W. Bush has spoken publicly about the importance of two-year schools to the nation's economic future, and community-development organizations and policy-makers also have touted their contributions.

The rising stock of two-year schools also is exemplified by the growing number of national organizations and initiatives that seek to assist community colleges and their students. Achieving the Dream: Community Colleges Count is just one example of such efforts. Here are a few others, along with Web site addresses that offer more information:

- **American Association of Community Colleges:** AACC, based in Washington, D.C., is the main membership organization for the nation's nearly 1,200 two-year institutions. (www.aacc.nche.edu)
- **Bridges to Opportunity:** This project, funded by the Ford Foundation, works in six states to implement state- and system-level policy changes that serve to increase the access and success of low-income students in community colleges. (www.sbctc.ctc.edu/Education/docs/FordBridgesProject/NationalProjectDescription.pdf)
- **Community College Affinity Partnership:** CCAP is a group of private foundations and national and state organizations that work together to coordinate their efforts to aid community colleges.
- **Community College Survey of Student Engagement:** CCSSE was established in 2001 as a project of the Community College Leadership Program at the University of Texas at Austin. The survey, adapted from a similar tool used on four-year campuses, assesses community colleges' effectiveness in actively engaging their students. (www.ccsse.org)
- **League for Innovation in the Community College:** Founded in 1968, this membership organization for community colleges includes more than 800 two-year institutions in 16 countries. (www.league.org)
- **National Articulation and Transfer Network:** NATN, a coalition of more than 200 large urban high schools, community colleges and four-year institutions, is a non-profit organization helping students of color identify and seize opportunities for educational advancement at two- and four-year colleges. (www.natn.org)
- **Opening Doors:** In this initiative, experts from New York-based MDRC are working with community colleges in several states to design and implement new types of financial aid, student services and classroom innovations to increase the success rates of low-income students. (www.mdrc.org/project_31_2.html)

principle of the community college movement – that a college education should be accessible to all Americans who seek it. Second is the increasingly urgent message that a high school diploma, once considered the standard for economic success, is no longer sufficient to compete in the highly competitive, global job market.

With the cost of an education at four-year residential institutions skyrocketing, community colleges also have become an increasingly popular option for students who want to meet basic course requirements at lower prices before moving on to a four-year institution. Finally, with their emphasis on community, public two-year schools continue to serve workers who want to upgrade the job skills that keep local economies viable.

The multiple missions of community colleges are, policy-makers agree, both the bane and the blessing of the system. Almost universally acclaimed by the communities they serve, two-year schools offer a range of services that can sometimes leave the institutions grasping for definition and identity. That uncertainty, in turn, can feed a common misperception that community colleges are the second-class citizens of American higher education.

"We don't always rank as the college of choice, even among the faculty," said Kimberly McKay, outreach coordinator for student services and development at South Texas College in McAllen, Texas.

Lori Baker, dean of student services at Virginia Western Community College in Roanoke, believes that sentiment is evolving. She draws an analogy between an economy motel and a luxury hotel: "The community college doesn't have all the amenities that four-year colleges have. We don't have valets or bellhops, and ... we certainly don't put chocolates under the pillow. But at the end of the day, when you stay at a hotel, there's only one thing you really want, and that's a good night's sleep. I think the community college system provides what we're all truly trying to provide – an education that will help students meet their goals."

Still, there's always room for improvement, and the nation's community colleges are embracing that spirit and working to transform the culture of two-year higher education. Some attribute the changes

(continued on Page 11)

(continued from Page 7)

to natural progression, the transition to a new generation of leaders and faculty from those who have guided community colleges since their widespread inception in the 1960s and 1970s.

Community colleges have always filled at least two basic niches: preparing transfer students for four-year institutions and meeting the workforce-development needs of the communities they serve. What has changed, according to Thomas Bailey, director of the Community College Research Center at Teachers College, Columbia University, is a shift in institutions' focus from inputs (enrollment rates) to outcomes (rates of attainment or success).

This emphasis on accountability is making community colleges take a hard and honest look at how well they serve the students they enroll. Perhaps the students they're looking at most closely are those who drop out after one semester or less. To meet the challenge of getting more students through the first year and beyond, community colleges are turning to a familiar but often-underused tool: student-outcomes data.

"There is a sense that accountability is something they need to confront," said Richard Kazis, director of Jobs for the Future, a Boston-based advocacy organization for economic and educational development. "In the past, it was not unusual for community colleges to say: 'We have so many different kinds of students coming in for so many different things, so it's very difficult to say what our retention rates mean or what our graduation rates mean.' There is now a sense that they can no longer say that. ... They now understand that data about student outcomes helps them improve what they're doing. It helps them understand where they are weak and where they have value and where they need to improve."

It's not that community colleges have operated in a data vacuum. The numbers were always there; but these days, community colleges are crunching them in ways they've never done before. This data-driven trend is part of the general movement toward greater accountability in education that is perhaps most evident in the federal No Child Left Behind law. The trend also is being spurred by efforts such as Achieving the Dream: Community Colleges Count, a national initiative that aims to improve success rates among community college students, particularly those in underserved, at-risk populations. (See Pages 8-10 for more on Achieving the Dream.) The initiative, which began in 2004 with funding from Lumina Foundation for Education, now includes 10 partner organizations, including two additional funding organizations, KnowledgeWorks Foundation and the Nellie Mae Education Foundation. Achieving the Dream is at work in seven states, on the campuses of 35 community colleges.

One of those colleges is South Texas College (STC), one of the new kids on the community college block. Located in McAllen, barely 10 minutes from the Mexican border, the school opened in 1993. Registration lines wound around the block that first year, when STC served 1,000 students. Today, more than 17,000 students attend STC – a school that, along with the area's low labor costs, has been a driving force behind the growth in light industry in Hidalgo and Starr counties.

Building 'a culture of evidence based on data'

In turn, the driving force behind STC is Shirley A. Reed, the school's first and only president. Tough and plain-spoken, Reed is an educational leader who's never shy about pushing the state legislature for larger appropriations or urging greater productivity from faculty and staff.

Reed's playbook has always contained volumes of data reflecting the make-up, character and academic level of STC students. The research also provided vivid evidence of the school's Achilles heel: 25 percent of the school's at-risk students departed between the first and second semesters, and fully half of them never made it to a second year of classes.

As much as Reed was driven by the numbers, she struggled to convince the faculty to embrace the relationship between data and classroom performance. The faculty always pointed to anecdotal evidence from their classrooms – unprepared students who needed to be held more accountable for their performance – to trump the data. Eventually, the two sides came together.

First, the president agreed that the faculty's instincts about conduct were often correct. Students were indeed registering late, unwilling or unable to adapt adequate study habits and delaying important decisions, notably failing to line up the financial aid that would guarantee them funding for their second year at STC. "The more we looked at the factors," said Reed. "The more it was clear we were accommodating bad behavior."

But then Reed urged faculty members to look to the causes of that behavior. Faculty bought in to the idea, and STC is now much more systematic in using research data to better understand and address the challenges that so many students face. "We came to the conclusion that we needed to build a culture of evidence based on data, not just what we thought made sense," said Reed.

The root of the low retention rate was a lack of readiness: The STC entrance exam indicated that 83 percent of incoming freshmen were unprepared for college-level courses. Sixty-seven percent of them required remediation in English, reading or math. Arriving at college unprepared for class work is one obvious barrier to college success. And STC and other community colleges have identified other such barriers – other factors that magnify academic shortcomings and put students at risk of dropping out. They include:

- Being the first member of the family to attend college.
- Being the product of a K-12 system that failed to develop students' potential.
- Holding down a job, in most cases full time.
- Being a parent, often a single parent.
- Being a part-time student and dropping out periodically due to the demands of time or lack of resources.

Identifying these challenges was the first step; then came the hard part.

"They are all different challenges," pointed out Frank Renz, executive director of the New Mexico Association of Community Colleges. "That makes it difficult for the community colleges – especially in the student services offices. (These offices) could use a cookbook on how to support these students because they differ so much from one individual to another and one population to another."

For the colleges that have joined Achieving

the Dream, that means taking the education of at-risk students in an entirely different direction. Some call it a holistic approach – education in the context of life. STC and others prefer to call it case management. Whatever it is called, it's the acknowledgment that the classroom is usually just one part of an intricate web that constitutes life for these students – a web complicated by financial distress, family obligations and other social and economic factors.

Fully appreciating these circumstances helped lift the curtain on a truth that many in community colleges seemed to overlook: Nontraditional students, who attend community colleges in huge numbers, often confront barriers that many four-year students simply don't face.

"It was the elephant in the middle of the room," said Eileen Holden, vice president for academic affairs at Broward, another Achieving the Dream college. "Everybody knew it was there, but nobody wanted to talk about it because then we'd have to do something about it. We never looked at the problem through the lens of the tremendous amount of courage it takes for people who test into three prep (remedial) classes to stay here."

"It's my job to give these kids a second chance," says Leslie Sherman, who teaches a "success course" on the Broward Community College campus in Coconut Creek, Fla.

The steps colleges have taken to move at-risk students from registration to graduation aren't exactly radical. But they're close. "Nobody ever crunched the numbers before," said Michael Cook, coordinator of the first-year program at still another Achieving the Dream institution, Mountain Empire Community College (MECC), in Big Stone Gap, Va. "We've tried other things in the past, like early-warning systems. But they just didn't work. I don't think they were intrusive enough."

At South Texas College (STC), intrusiveness begins the moment the school has a student's placement exam in hand. The test includes an addendum that alerts counselors and administrators to the risk factors at play – work, family, poverty and high-school achievement levels. Once at-risk students are identified, the school tracks their progress on campus, monitoring them for potential danger signs such as irregular attendance, slipping test scores, a tendency to switch majors, and other clues that failure or dropout may be imminent. This is where the Student Success Center (SSC) enters the picture. Located in a state-of-the-art facility four times larger than the building it replaced, the center is, in effect, a safety net designed to catch at-risk students in free fall. It's a net supported by a computer program that combines risk factors, faculty input and classroom performance. When a red flag goes up, the success center springs into action.

Patrick Murray, the center's director, punched up the record of a student who came to the SSC's attention after enrolling in the same basic math class five times. "We at first thought the student had a learning problem," Murray explained. "Then we realized, after looking at the data, that he was just putting off the hard work in his classes because of math anxiety. He was *in* classes, but he wasn't trying to *pass* the classes."

Once a problem is identified, the center's Structured Learning Assistance program takes over, offering intensive one-on-one peer and professional staff tutoring undertaken with a single purpose: to keep the student in school.

Student success has become a mantra on many two-year campuses. It is the watchword that motivates staff and faculty, and it's used to inspire students who once were allowed to quietly fade away.

Success is at the center of the eight sections of the course that Leslie Sherman teaches at Broward's North Campus in Coconut Creek, Fla. Sherman's classes combine practical skills (time management, prioritizing), life skills (including how to balance a checkbook) and basic pedagogy. She also requires each student to learn 50 new words by the end of the semester. "Half of these kids have never written a report before," she said. "They can read the words, but they don't have any idea of how to put them together in a sentence." By semester's end, if all goes according to plan, the students will have learned what they must do to succeed in college.

As befits a "success course" teacher, Sherman

(continued on Page 18)

(continued from Page 14)

works with boundless energy and patience. The assignment on a late November day required each student to deliver a short presentation, complete with background material, to describe his or her academic major and career goals. One student explained how a love for children pushed her toward being a social worker; a prospective psychologist discussed a penchant for helping others; a would-be FBI agent detailed the steps necessary to achieve her career goal. In the questions she asked and the gentle advice she offered, Sherman treated each student with the deference of a Harvard dean consulting with a doctoral candidate. Finally, a young woman stepped to the front of the class. Her objective: to become an elementary school teacher.

"What do teachers do every day?" Sherman asked.

The student hesitated. "Go to work?" she half-answered.

Sherman didn't flinch; she didn't grimace. She pushed forward. "And what do they *do* at work?" she pressed. A student in the back of the room snickered.

"Um, they teach kids."

"Exactly!" Sherman exclaimed with unbridled enthusiasm.

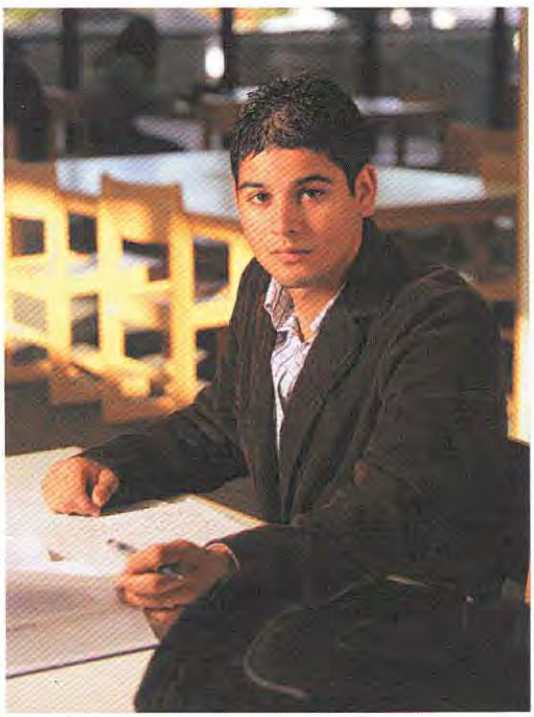
The young woman smiled. She'd aced Ms. Sherman's test, such as it was. With a bounce in her step, the student returned to her seat.

"Is it frustrating?" Sherman asked rhetorically after class. "Of course it is. But I can't let that come out. It's my job to give these kids a second chance in life. So many of them have never had praise – ever. Nobody ever said to them: 'I believe in you.'"

One story speaks volumes about the personal relationships Sherman builds with her students. One day in late October, she received a call from a young woman in her success class. The student's 2-year-old son had died 10 minutes earlier, losing a long battle with kidney disease. Leslie Sherman was the first person she called.

Changing student behaviors to boost student success

Of course, education as case management isn't always marked by life-and-death drama, but as Luis Gudino's story shows, it's often life-altering. As South Texas College (STC) students go, Luis is fairly typical. He took two developmental classes before he could embark on his declared field of study and enter STC's radiology program. As he began his third semester, one major obstacle stood in the way: a biology exam. Doing well on the term's first biology exam would allow him to keep up the 3.0 grade point average he'd worked so hard to sustain. The consequences of falling short were twofold. For Luis, the biggest concern was the most immediate: If he lost his 3.0 GPA, he would also lose the "good student" discount rate on his car insurance. Priority No. 2: Admission to STC's radiology program also required that he maintain that GPA.



Luis Gudino admits that poor study habits have hampered his progress in South Texas College's radiology program. Still, he's determined to succeed – and STC's "success course" will help him.

During his first year, Luis took STC's version of the success course, picking up many of the same learning strategies imparted by Leslie Sherman at Broward, including the difference between college and high school. "You're more independent, and you have to find your own way through," he said. Luis understood what that entailed. Yet, despite the fact that he was not employed, Luis set aside too little time each day for studying, insisting that he could only retain the material for a short time. "I can study an entire week, and it doesn't do me any good," he explained. "I have to study the day before and the night before (tests). The day before, I have to cram it all in."

That pattern backfired last fall when Max Abbassi, the department chair and Luis' biology professor, demanded that students gradually absorb the nuances of cell and bone structures in advance of the semester's first exam. A week before the test – an exam for which, as usual,

(continued on Page 20)

he had failed to crack a book – Luis decided he wasn't willing to risk his GPA, his insurance discount and his admission into the radiology tech program. He dropped the class.

Two years earlier, Luis would have left the class and drifted away unnoticed. Today, STC has a different protocol: Before a student leaves, he or she must first deliver a face-to-face explanation to the instructor.

Luis was one of four test-phobic students Abbassi met prior to the first exam. Appealing to their pride, he urged each one not to give up. The appeal failed, as Luis refused to reverse his decision to drop the course. But the system may yet succeed: Luis plans to enroll again – this time incorporating the lessons that Abbassi has taught. "I want to be up for the challenge of it," Luis said. "I want to do better, like the professor said, with my time management."

Although STC's safety net caught Luis Gudino, no one can accurately say how many community college students like Andy Smith continue to fall through the cracks. Andy graduated from high school last June filled with high hopes and ambition. Determined to become an FBI agent, he had plotted a path that had him studying criminal justice for two years at Mountain Empire Community College in Virginia, attending two more years at the University of Tennessee, and then enrolling in the FBI Academy. Less than two months into that plan, Andy walked out of MECC and never returned. He didn't stay long enough to take even a single college-level exam.

The reason was simple: money. A new, higher-paying job with a telecommunications company offered him the promise of keeping up with a cell phone bill, car payments and credit card debt. MECC made no effort to keep Andy enrolled.

Andy's story is one that no college president wants to hear, particularly one at a college that is initiating programs to retain at-risk students. "We need a support system for that individual," said MECC President Terrance Suarez. "I think of that as a college failure. Why weren't we in a position to intervene and counsel that person and try to make sure that he stayed? We could have made some kind of adjustment for him. Perhaps he could have taken one or two classes and stayed in school. ... It's not all our responsibility. But if we could have presented this young man with an alternative, he may not have left."

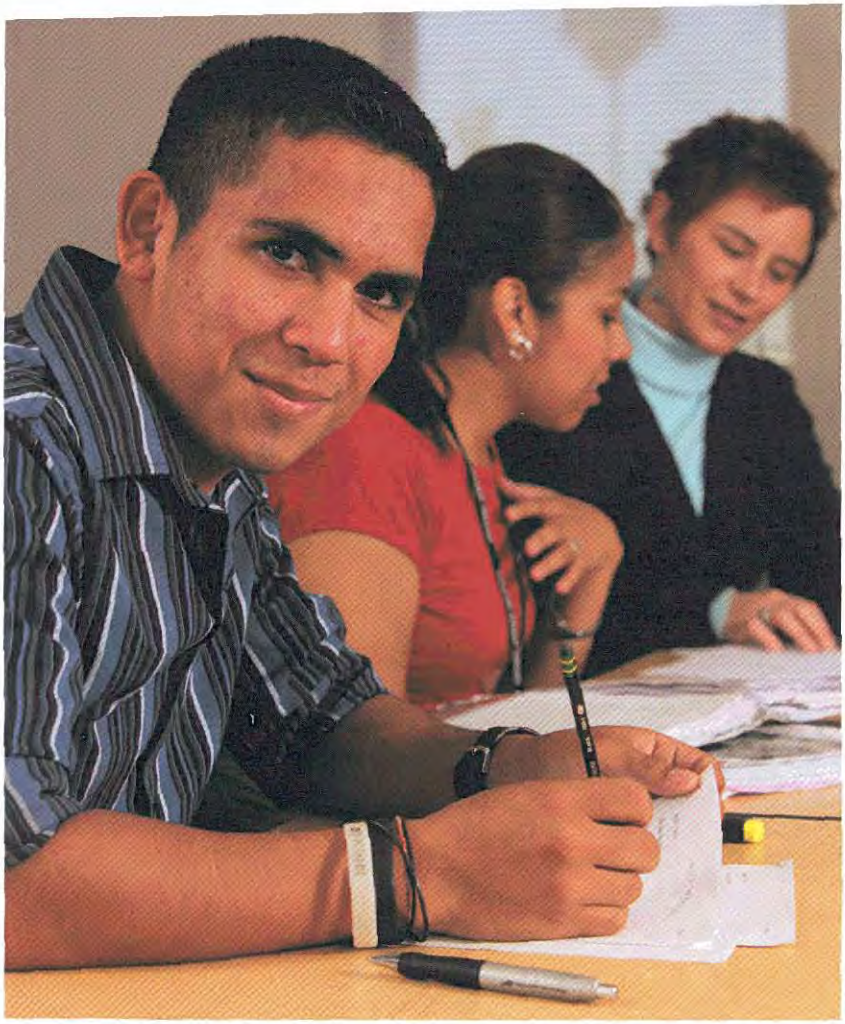
Hank Dunn, director of student services at Sinclair Community College in Dayton, Ohio, a leader in implementing strategies to keep students engaged and in school, believes Suarez was being too hard on himself and his school. Sometimes, Dunn pointed out, students simply drop out and there's nothing that can stop them.

"I wish we could say that couldn't happen here – but it can," Dunn said. "If you withdraw or try to withdraw from school, we do have a withdrawal mechanism: Is it financial help? A job? Child care? Transportation issues? Before we let you walk out the door, we do try to help you. But what we've found is that 70 percent of the reasons students want to leave we have no control over."

Creating communities of commuter students

As they step up efforts to keep students like Luis Gudino and Andy Smith enrolled, two-year institutions also are renewing their commitment to engage students who are on track. In some ways, the "community" in community college can be misleading. Unlike residential, four-year institutions, community colleges don't typically offer the camaraderie of residence halls, intercollegiate sports, fraternities, sororities and other non-academic amenities that create a more expansive learning environment. Community college students are typically (and necessarily) more involved with real life than with campus life – and many see this difference as a plus. "At community colleges, students see education as a

Andy Smith dropped out six weeks after starting classes at Mountain Empire Community College – abandoning, at least temporarily, his plan to transfer to the University of Tennessee and become an FBI agent.



Sergio Silva, in class at South Texas College with Alexandra Hinojosa and English instructor Ashlee Brand, is on track to receive his associate's degree in 2007 and plans to pursue a four-year degree in computer science. Just five years ago, he spoke no English.

privilege," said Robert Cabello, vice president of student affairs at Broward.

Nichelle Campbell, a 25-year-old single mother and second-year Broward student, echoes Cabello. Prior to becoming a student herself, Nichelle held a clerical position at the University of Miami in Coral Gables. She now views higher education from two different perspectives.

"We have a lot of parents here who think: 'If I'm paying for this class, then I have to finish this class,'" she said.

More than 80 percent of students in two-year colleges, Nichelle included, have a full- or part-time job, according to the Community College Survey of Student Engagement (CCSSE). Work and family obligations are the main reasons many community college students head straight to the parking lot after class.

In 2004, CCSSE data showed that only 16 percent of community college students were involved in extracurricular campus activities. The 2005 survey found that 45 percent of two-year students worked with classmates on in-class projects, but only 21 percent interacted outside the classroom. Colleges are working to increase those rates of peer interaction – sometimes in unconventional ways.

One of those ways is playing out in Ashlee Brand and Bonnie Gunn's "hybrid" classroom at South Texas College. In a combination bordering on incongruous, STC has melded two courses: English 1301 and Biology 1408. Brand handles the former, Gunn the latter. In their class, the goal is to create an active learning community, one in which students teach each other, and where the passive receipt of information via lecture is the exception, not the rule. Learning communities are touted by experts such as Vincent Tinto of Syracuse University as a key strategy in today's colleges.

"When the faculty collaborates, the students really pick it up," said Brand, a college English instructor who began her own academic journey at a community college in upstate New York. "I was just like these students," Brand recalled, except that her first exposure to a learning community came much later. "Why wait until grad school to give this type of opportunity?" she asked.

Why indeed – as the students in the Brand-Gunn classroom proved one recent bright Texas morning. Jayney Garcia and Alexandra Hinojosa sat on one side of a table, opposite Sergio Silva and another student. The lines were clearly delineated. Sergio and his partner with their skill in the sciences matched with Jayney's and Alexandra's appreciation for the written word.

"The interaction is the best thing about learning communities," said Sergio. "If you just focus on the science, then you close your eyes to the other perspectives. You put the two minds together, and you come up with more ideas."

After graduating from high school, Alexandra tried to learn biology the conventional way – lecture, lab and study – at a four-year university near her home. It didn't work. Three years after she

dropped out of that institution, Alexandra enrolled at STC to take advantage of the lower cost, smaller class sizes and better access to faculty. The English/biology learning community turned out to be a bonus not only for Alexandra, but for the class as a whole: Brand said the cumulative grades in both English and biology have increased between 20 percent and 30 percent compared to when she and Gunn taught the classes separately.

"This is great because, if we don't understand something, we can always ask another student," said Alexandra. More often than not, the student being asked is Sergio, a young man considered exceptional by both classmates and instructors. "He's the brains here," said Alexandra. "I think maybe he can teach some of this better than the teachers can."

Sergio couldn't speak a word of English in 2001, when he left his family in Mexico to move into his grandparents' home an hour west of McAllen. On his first day of school in his new country, his classmates rose for the pledge of allegiance. Without a clue as to what they were doing or saying, Sergio followed suit. "I knew something was going on, so I figured I'd better stand up," he said.

By his second year he'd mastered the language. ("When I found out he'd just learned to speak English two years before he started college, I almost fell over," recalled Brand.) A year later, Sergio graduated 13th in his class of 325 students. Had he known about Advanced Placement courses, Sergio believes he would have ranked even higher. With all of these achievements came a growing awareness of the value of a college education.

Supported by a grandfather laboring in the farms for $5.20 an hour, Sergio saw community college as his only option after high school – and a very welcome one. It puzzles Sergio that some people look down their noses at a two-year institution. "I don't look at STC as an obstacle; I look at it as a steppingstone to a four-year school," said Sergio, who has his eye on either the University of Texas at Austin or Texas A&M in College Station.

Wherever he transfers after receiving his associate's degree in 2007, Sergio plans to continue pursuing a degree in computer science. Brand and Gunn have bigger plans. "Sergio has the brain of a researcher," said Brand. "We're trying to show him all the options in his life." Sergio finds the teachers' inducements amusing. "They're trying to brainwash me," he joked.

The relationship between instructors such as Ashlee Brand and Bonnie Gunn and students like Sergio Silva is not unusal. Spend enough time on a community college campus – anywhere – and it is often difficult to determine who does more to inspire whom. In many ways, reciprocity is the soul of the two-year system – and that spirit extends beyond student-teacher relationships. More and more colleges are building links to local businesses, manufacturers, civic groups and governmental leaders.

Forging and strengthening college-community links

Mountain Empire Community College in Virginia is a place where community ties have always been strong. "The traditional university has a statewide responsibility, but we have a defined service region," said MECC President Terrance Suarez. In many ways that region – and the direction of the college itself – are defined by one word: coal. Area employment has long been tied to the mines tucked into the breathtaking Appalachian hills that gave Mountain Empire its name, though service industry and technology jobs are becoming more prevalent.

After working hours, there isn't much to do in Lee, Scott, Wise and Dickenson counties, the rural outposts that MECC serves. In fact, most folks are likely to view Big Stone Gap as the kind of place that inspires dreams of escape. The nearest shopping mall is 45 minutes away, and, according to Andy Smith, local conversations often focus on the frequent, fatal car wrecks on the region's mountain roads.

Few people understand the area's coal-fired history better than Wendell Fowler, a professor of mining, maintenance and manufacturing at MECC. A former miner who earned master's and doctoral degrees while recovering from a crippling mine injury, Fowler is the faculty point man between MECC and the mining companies. "A lot of places would've fired a guy like me when the mines went down," said Fowler, referring to the 1990s, when demand for coal dropped and mining jobs in southwest Virginia dwindled. Instead, MECC provided a sabbatical so Fowler could switch his area of expertise to construction. Three years ago, when the mining companies slowly started to return, Fowler reinvented himself and the mining program. There was little choice.

The days when the coal companies would pluck "red hats" (laborers) off the streets of Big Stone Gap and send them into the mines with minimal training are over.

Today's coal miners use their brains, not just their backs, said Valerie Lee, a recruiter for the Cumberland River Coal Co. Lee, who staffed a booth at a recent MECC job fair, emphasized that high-tech equipment requires miners to be technology-savvy and well-trained. "If that piece of equipment goes down," she said, pointing to the computerized image of a multiton earthmover, "they need to hook up a laptop, diagnose the problem and fix it. And you learn that in college."

No one knows that better than Fowler, whose teaching, now more than ever, parallels an industry that has retooled itself around the latest technology. Today's miner must have skills in math, computers, circuitry, motor control and programmable object control (robotics). "We still mine coal underground, but it's not with a pick and axe," Fowler explained. "It's all automated now."

So, too, is Fowler's classroom, a lab filled with students punching ominous-looking red buttons that control various high-tech gadgets and tools of the mining trade – all donated by the coal industry.

Before students get to the gadgetry, though, Fowler turns their concentration to an even more important aspect of modern mining – and perhaps of any industry. "The first thing we teach is problem-solving," he said.

'We empower people. That's what we do here.'

The father of two, miner Jeff Day spends as many as six days a week rebuilding underground machinery and the little spare time that he has in MECC's non-credit mining apprentice program. It is something he has to do for himself and his family.

Without the mining program, Day said, "I'd be making a lot less money, and I wouldn't be moving up."

Last fall, 70 students were enrolled in Fowler's classes, the vast majority of them – like Day –

for no credit. Though disappointed that only two of his students are working toward degrees, Fowler isn't motivated solely by the number of students who emerge with diplomas.

"We empower people," he said. "That's what we do here. We get people with low self-esteem, and we prove to them that they can go to college and that they can make something of themselves."

The proof for many students begins with dual enrollment, programs that allow them to take college-level classes in high school. The problem is that such programs too rarely include the students who might be expected to benefit the most, those in low-income, at-risk populations. "So far, it's the middle- and upper-class kids who take advantage of (dual enrollment)," said Thomas Bailey of the Community College Research Center. "They see it as a way to get a head start so they can get through the basic education classes and start taking applied academics earlier."

That is starting to change at schools such as South Texas College. By offering its dual-enrollment classes in the high schools themselves, STC hopes to attract students who might not be on a college track and therefore are disinclined to take a course at an STC campus. In addition, dual-enrollment math and English students are not assessed tuition or fees.

"We meet them more than halfway," said Nicholas Gonzalez, director of high school programs and services for STC. Moreover, the college offers dual enrollment to students who have no intention of pursuing a degree. High school students participating in STC's career tech program get training that can prepare them for employment as emergency medical technicians or in precision manufacturing, computer-aided design, automotive and air-conditioning maintenance.

Encouraged by the success and popularity of career tech, STC instituted an academic-track "medical science academy" that gives students the opportunity to earn an associate's degree in biology while still in high school. STC is considering adding a similar program in engineering.

Living in the real world, working toward a dream

Nichelle Campbell, a second-year student at Broward Community College in Florida, is a walking checklist of the at-risk community college student. The first in her family to attend college, Nichelle has a child and a full-time job. She was raised on the premise that "making a living and paying the bills" is a person's top priority. As a result, she said, she got through high school "by the skin of my teeth" and went right to work. She didn't take her first college course until she was 21. Pregnant, she quit school after one semester. Three years later, Nichelle returned, only to learn that she would need two semesters of developmental math before she could earn a single math credit that counted toward her GPA. On paper, Nichelle Campbell is a prime candidate for failure.

Fortunately, she isn't living her life on paper. She's living in the real world, and she's learning at a college that is doing all it can to keep her on the path to success – a path she has defined for herself quite clearly. Now 25, Nichelle will earn her associate's degree in criminal justice from Broward this year. She and her 4-year-old daughter, Destiny, will then head to Florida State University in Tallahassee or to New York City's John Jay College of Criminal Justice. Three years from now, bachelor's degree in hand, she will be an agent with the U.S. Border Patrol. Nichelle outlines her future with unwavering certainty.

There are tens of thousands of potential Nichelle Campbells out there – success stories just waiting to be written in every corner of the nation. Community colleges are helping to write these stories in myriad ways: through learning communities, innovations in dual enrollment, community outreach and intrusive strategies that seek to address each student's unique needs. They are finding new ways to use data to foster student success – all with a single, overarching goal in mind: to help more students achieve their dreams.

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